December 18, 2006

Aloha,

The Hawaii State Department of Health (HIDOH) is pleased to announce the completion of the Draft 2006 INTEGRATED REPORT OF ASSESSED WATERS IN HAWAII PREPARED UNDER CLEAN WATER ACT §303(d) AND §305(b).

The three main sections of the draft report were each prepared by a different section of HIDOH. To simplify our response to public comments, HIDOH requests that public comments be grouped according to report sections and subsections (i.e., by waterbody type). The sections are; Part 1- Marine and Estuaries; Part 2 - Streams; Part 3 – Groundwater; and Part 4 - Assessment Decision Table (for Streams and Coastal Waters). Attached to this letter are the executive summary for the report and the table of contents for each of the Marine Waters and Streams components.

Due to changes in the delineation of assessment decision units for this reporting cycle, High priority for Total Maximum Daily Loads (TMDLs) development is initially assigned to only those waterbody/pollutant combinations for which TMDL development is currently in progress. Final assignment of priorities for TMDL development will utilize the criteria described in this draft report, and comments regarding TMDL development priorities are encouraged.

HIDOH invites comments on this report until close of business (4:30PM) on January 19, 2007. The report will be finalized and submitted to U.S. EPA as soon as possible after the comment period is closed and a response to comment document is prepared. Please respond in writing, either by mail, fax or email by the deadline. Phone conversations are not required to be part of the official response.

Mahalo nui loa,

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EXECUTIVE SUMMARY

Overall, the quality of the waters of the State is very good. The majority of the coastal waters and upland surface waters are in good condition. The overall quality of Hawaii's groundwater is generally considered excellent. The chemical contaminant concentrations that have been detected in public groundwater/drinking water sources are generally below state and federal drinking water standards.

The 2006 Integrated Report is the first effort by the Hawaii State Department of Health (HIDOH) to integrate both reporting requirements of the Clean Water Act (CWA) section (§) 305(b) and §303(d). This report is comprised of three sections, each with a particular focus. Section I focuses on coastal waters, and contains the actual 2006 Waterbody Assessment Decisions (Integrated 303(d) List/305(b) Report for Hawaii) (henceforth known as IR List) listing table for coastal and inland waters. Section II focuses on inland waters and deals with inland streams and other waters. Section III addresses the states' groundwater assessment.

The CWA §305(b) requires states to submit a list of assessed waters and determine if the quality of the water bodies are fulfilling their designated uses as specified in the state's surface water quality standards. Additionally, the CWA §106(e) requires State reporting on the status of their groundwater resources to Congress every two years in the biennial 305(b) report. The CWA §303(d) requires States to submit a list of Water Quality-Limited Segments, waters that do not meet state water quality standards, plus a priority ranking of listed waters, based on the severity of pollution and the uses of the waters.

The §303(d) list leads to action. Total Maximum Daily Loads (TMDLs) are pollution budgets to bring §303(d)-listed pollutant/water body combinations into compliance with water quality standards. Computation of TMDLs for all 303d listed pollutant water body combinations, prepared in accordance with the priority rankings, must follow EPA approval of each state's list.

Hawaii's 2004 §303(d) List plus data collected from State surface water bodies over the past six years constitute the information reviewed for this 2006 Integrated report. Decisions to list, de-list or not list a water body, for which data exist and have been reviewed, must be documented (40 CFR §130.7). The review of water quality requires a minimum amount data over a period of time, so extreme events of very short duration do not necessarily cause a water body to be listed. The periodic listing process allows Hawaii Department of Health (HIDOH) to list, de-list, or more clearly articulate or delineate the parameters for which the water bodies are listed.

HIDOH's 2006 303(d) List contains a total of 93 streams segments and 219 coastal areas. One stream was entirely de-listed and several modifications were made within listings. Seventeen new streams were listed. For coastal waters, 42 new water bodies were listed, 2 were de-listed, and 6 previously listed water bodies were listed for new pollutants. In total, there were 534 coastal water bodies, of which 270 (51%) had available data for assessment. The breakdown for the individual islands are: Kauai 38 (45%), Oahu 98 (54%), Molokai 38 (8%), Lanai 8 (44%), Maui 76 (61%), and Hawaii 47 (53%).

Within the 93 listed inland freshwater perennial streams, there were a total of 296 individual pollutant/water body combinations. The most common listing was turbidity with 101 instances

of exceedance. The next most common listings were Nitrite/Nitrates, Total Nitrogen, and Total Phosphorus with 75, 67, and 41 instances of exceedance, respectively. There were 5 instances of Dieldrin listings, 2 Chlordane, 2 Total Suspended Solids, and 1 listing for Metals/Lead.

Of the 219 listed coastal waters, 63 were due to high *Enterococcus* indicator bacteria test results. In general the department does not consider these waters to represent a threat to human health, despite the results, because in tropical waters, *Enterococcus* may result from animal waste or soils, instead of human sewage which the indicator bacteria was intended to signal. Recent studies presented at the recent 2006 BEACH Conference suggest that *Enterococcus* reproduces in biofilm found in drainage pipe, concrete channels and river rocks, and in beach sand. For these reasons, Hawaii uses a secondary indicator, *Clostridium perfringens* to determine if human fecal contamination is involved

Hawaii's bacterial water quality standard is only 7 colony forming units (CFU)/100mL, as compared to the national standard of 35 cfu/100mL. During rain events, *Enterococcus* levels in the coastal waters increase due to storm water runoff from streams and storm drains. For these reasons, HIDOH intends to raise the Hawaii standard to 35 cfu/100mL to match the national standard. Nonetheless, when *Enterococcus* levels rise during non-storm related events, a sanitary survey is conducted to determine the cause of the rise.

Turbidity was the most common pollutant to trigger a coastal water listing with 204 occurrences. The HIDOH thinks these are due to polluted runoff, and is focusing its polluted runoff control program on selected watersheds to make measurable improvements.

The 42 new coastal areas were listed for one or a combination of pollutants that include *Enterococcus*, total nitrogen, nitrate + nitrite, total phosphorus, turbidity, chlorophyll a, and ammonium nitrogen. Similar to the existing listings, turbidity was the most common pollutant to trigger a coastal water listing, with 21 occurrences.

The groundwater report presents aquifer specific assessments for groundwater resources in the State of Hawai`i for 2004 and 2005. The report shows that contamination continues to occur in Hawai`i. In most cases, once a groundwater source has been contaminated, it remains contaminated for many years. Groundwater can become contaminated through natural processes, but anthropogenic, or human induced, contamination poses more serious problems. Contaminants may come from herbicides, pesticides, industrial solvents, and other sources which are applied, spilled, or leaked into the ground. Groundwater contamination is a significant concern because nearly all of Hawai`i's drinking water comes from groundwater sources.

The overall quality of Hawai`i's groundwater is generally considered excellent. The chemical contaminant concentrations that have been detected in public groundwater/drinking water sources are generally below state and federal drinking water standards. The percentage of Hawai`i's population served by drinking water in compliance with State and Federal microbial and chemical standards called maximum contaminant levels (MCLs) was 99.1% in 2005. See attached Hawai`i State Department of Health Indicators of Environmental Quality for drinking water.

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